



GP Performance End Mills



Performance Leader In:

Reliability..... delivers the quality & performance you expect

Durability..... stands up to the most extreme conditions

Productivity..... attacks the most demanding application using variable pitch technology (GP4R)

Longevity..... reduced chatter enhances tool life

Versatility..... one tool for slotting, pocketing, roughing & finishing

Maximum Performance in:

- Stainless Steels
- Low & medium carbon steels
- Tool Steels

Variable Pitch Technology!

4 Flute End Mills

(Variable Flute / Center Cutting)



Designation	Cutter Dia.	Shank Dia.	Length of Cut	OAL	Corner Radius	UP25	TL25
GP4R-SQ0125	1/8	1/8	1/4	1-1/2	--	■	■
GP4R-SQ0125-015	1/8	1/8	1/4	1-1/2	.015	■	■
GP4R-SQ0187	3/16	3/16	5/8	2	--	■	■
GP4R-SQ0187-015	3/16	3/16	5/8	2	.015	■	■
GP4R-SQ0250	1/4	1/4	3/4	2-1/2	--	■	■
GP4R-SQ0250-020	1/4	1/4	3/4	2-1/2	.020	■	■
GP4R-SQ0312	5/16	5/16	13/16	2-1/2	--	■	■
GP4R-SQ0312-020	5/16	5/16	13/16	2-1/2	.020	■	■
GP4R-SQ0375	3/8	3/8	7/8	2-1/2	--	■	■
GP4R-SQ0375-020	3/8	3/8	7/8	2-1/2	.020	■	■
GP4E-SQ0375	3/8	3/8	1-1/8	3	--	■	■
GP4E-SQ0375-020	3/8	3/8	1-1/8	3	.020	■	■
GP4R-SQ0437	7/16	7/16	1	2-3/4	--	■	■
GP4R-SQ0500	1/2	1/2	1	3	--	■	■
GP4R-SQ0500-030	1/2	1/2	1	3	.030	■	■
GP4E-SQ0500	1/2	1/2	1-1/4	3	--	■	■
GP4E-SQ0500-030	1/2	1/2	1-1/4	3	.030	■	■
GP4R-SQ0562	9/16	9/16	1-1/4	3-1/2	--	■	■
GP4R-SQ0625	5/8	5/8	1-1/4	3-1/2	--	■	■
GP4R-SQ0625-030	5/8	5/8	1-1/4	3-1/2	.030	■	■
GP4E-SQ0625	5/8	5/8	1-5/8	3-1/2	--	■	■
GP4E-SQ0625-030	5/8	5/8	1-5/8	3-1/2	.030	■	■
GP4R-SQ0625-060	5/8	5/8	1-1/4	3-1/2	.060	■	■
GP4R-SQ0750	3/4	3/4	1-1/2	4	--	■	■
GP4R-SQ0750-030	3/4	3/4	1-1/2	4	.030	■	■
GP4R-SQ0750-060	3/4	3/4	1-1/2	4	.060	■	■
GP4R-SQ0750-125	3/4	3/4	1-1/2	4	.125	■	■
GP4R-SQ1000	1	1	1-1/2	4	--	■	■
GP4R-SQ1000-030	1	1	1-1/2	4	.030	■	■
GP4R-SQ1000-060	1	1	1-1/2	4	.060	■	■
GP4R-SQ1000-125	1	1	1-1/2	4	.125	■	■

Ball Nose End Mills

(Variable Flute / Center Cutting)



Designation	Cutter Dia.	Shank Dia.	Length of Cut	OAL	TL25
GP4RC-BN0250	1/4	1/4	3/4	2-1/2	■
GP4RC-BN0375	3/8	3/8	7/8	2-1/2	■
GP4RC-BN0500	1/2	1/2	1	3	■
GP4RC-BN0625	5/8	5/8	1-1/4	3-1/2	■
GP4RC-BN0750	3/4	3/4	1-1/2	4	■
GP4RC-BN1000	1	1	1-1/2	4	■

2 Flute End Mills

(Center Cutting)



Designation	Cutter Dia.	Shank Dia.	Length of Cut	OAL	Corner Radius	TL25
GP2R-SQ0250	1/4	1/4	3/4	2-1/2	-	■
GP2R-SQ0312	5/16	5/16	13/16	2-1/2	-	■
GP2R-SQ0375	3/8	3/8	7/8	2-1/2	-	■
GP2R-SQ0437	7/16	7/16	1	2-3/4	-	■
GP2R-SQ0500	1/2	1/2	1	3	-	■
GP2R-SQ0562	9/16	9/16	1-1/4	3-1/2	-	■
GP2R-SQ0625	5/8	5/8	1-1/4	3-1/2	-	■
GP2R-SQ0750	3/4	3/4	1-1/2	4	-	■
GP2R-SQ0875	7/8	7/8	1-1/2	4	--	■
GP2R-SQ1000	1	1	1-1/2	4	-	■

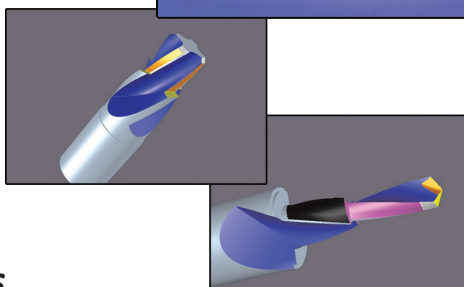
UP25 This uncoated carbide grade is made from high quality fine grade materials. Due to its exceptional balance of wear and toughness this grade enables sharp edges and consistent controlled wear rates. UP25 is used for general purpose machining of all steels including stainless.

TL25 Grade has a thick titanium aluminum nitride (TiAlN) PVD coating designed for the most demanding, dry machining applications



From simple modifications to standard lines of tooling, to completely engineered tooling solutions- TYSON TOOL has the skill and experience to deliver quality products to increase productivity.

- » Solid Carbide Tooling
- » Custom Drills & Taper Mills
- » Virtually Unlimited Form Tools
- » Coolant Through G-Drills, Step Drills and Ball Tools
- » Special Radii
- » Reamers
- » Jig Boring Tools
- » Forming Tools
- » Dovetail Cutters
- » Porting Tools
- » Coolant Through
- » Advanced Coating Capability



Recommended Cutting Parameters

	Work Material	Type of Cut	Axial DOC	Radial DOC	Speed (SFM)	Feed (Inches Per Tooth)						
						1/8	1/4	3/8	1/2	5/8	3/4	1
P	Low Carbon Steels <= 38 Rc 1018, 12L14, 8620	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D .5 x D	350 425	0.0008 0.0010	0.0016 0.0020	0.0024 0.0030	0.0032 0.0040	0.0040 0.0050	0.0048 0.0060	0.0064 0.0080
	Medium Carbon Steels <= 38 Rc 4140, 4340	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D .5 x D	325 375	0.0006 0.0008	0.0013 0.0017	0.0020 0.0026	0.0027 0.0035	0.0034 0.0044	0.0040 0.0053	0.0054 0.0070
	Tool and Die Steels <= 38 Rc A2, D2, O1, S7, P20, H13	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D .5 x D	325 375	0.0006 0.0008	0.0013 0.0017	0.0020 0.0026	0.0027 0.0035	0.0034 0.0044	0.0040 0.0053	0.0054 0.0070
	Tool Steels 39 Rc to 48 Rc	Slotting Peripheral - Rough	.75 x D 1 x D	1 x D .5 x D	225 275	0.0005 0.0006	0.0010 0.0012	0.0015 0.0017	0.0020 0.0023	0.0025 0.0029	0.0030 0.0035	0.0040 0.0046
	Easy to machine stainless steel 416, 410, 302, 303	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D .5 x D	300 375	0.0006 0.0008	0.0012 0.0016	0.0018 0.0024	0.0025 0.0032	0.0031 0.0040	0.0037 0.0048	0.0050 0.0064
M	Moderately difficult stainless steels 304, 316, Invar, Kovar	Slotting Peripheral - Rough	.75 x D 1.5 x D	1 x D .5 x D	275 350	0.0005 0.0007	0.0011 0.0015	0.0016 0.0023	0.0022 0.0032	0.0027 0.0037	0.0033 0.0045	0.0044 0.0064
	Difficult to machine stainless steels 316L, 17-4 PH, 15-5 PH, 13-8 PH	Slotting Peripheral - Rough	.5 x D 1 x D	1 x D .5 x D	250 300	0.0004 0.0005	0.0009 0.0011	0.0012 0.0016	0.0018 0.0022	0.0022 0.0028	0.0027 0.0033	0.0036 0.0044
K	Cast Iron Gray	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D .5 x D	400 500	0.0006 0.0007	0.0012 0.0015	0.0019 0.0023	0.0025 0.0030	0.0031 0.0037	0.0038 0.0046	0.0050 0.0060
	Cast Iron Ductile	Slotting Peripheral - Rough	1 x D 1.5 x D	1 x D .5 x D	300 400	0.0006 0.0007	0.0012 0.0014	0.0018 0.0021	0.0023 0.0028	0.0029 0.0035	0.0035 0.0042	0.0046 0.0056
	Cast Iron Malleable	Slotting Peripheral - Rough	0.75 1 x D	1 x D .75 x D	250 325	0.0004 0.0005	0.0008 0.0011	0.0012 0.0016	0.0015 0.0022	0.0019 0.0027	0.0023 0.0033	0.0030 0.0044
N	Aluminum Alloys 2024, 6061, 7075	Slotting Peripheral - Rough	1 x D 1 x D	1 x D .5 x D	800 1000	0.0008 0.0010	0.0015 0.0020	0.0022 0.0030	0.0030 0.0040	0.0037 0.0050	0.0047 0.0060	0.0060 0.0080
S	Titanium Alloys	Slotting Peripheral - Rough	.5 x D 1 x D	1 x D .5 x D	250 300	0.0005 0.0006	0.0010 0.0012	0.0015 0.0017	0.0020 0.0023	0.0025 0.0029	0.0030 0.0035	0.0040 0.0046
	High Temperature Alloys Inconel, Haynes, Stellite, Hastalloy	Slotting Peripheral - Rough	.25 x D 1 x D	1 x D .25 x D	70 95	0.0004 0.0005	0.0008 0.0009	0.0012 0.0014	0.0015 0.0018	0.0019 0.0022	0.0024 0.0028	0.0030 0.0036

TYSON TOOL®

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